IN THE CLAIMS:

Please amend the claims as follows.

1. (Currently Amended) A projection apparatus for imaging a pattern of a mask onto a substrate having a radiation sensitive layer by means of a beam of ~~projected~~ charged particles, ~~comprising:~~ the mask comprising a membrane layer made of a first material, scattering regions forming the pattern and made of a second material scattering the charged particles more than the membrane layer, a plurality of straightly extending supporting struts spaced apart from one another and supporting the membrane layer together with the scattering regions, and at least one mark region, wherein the projection apparatus comprises:

~~a radiation sensitive layer;~~

~~a mask, wherein the mask comprises:~~

~~a membrane layer made of a first material,~~

~~scattering regions forming the pattern and made of a second material scattering the charged particles more than the membrane layer, and~~

~~a plurality of straightly extending supporting struts spaced apart from one another and supporting the membrane layer together with the scattering regions;~~

~~a projection apparatus, wherein the projection apparatus comprises:~~

a beam shaping device for producing the ~~projection~~ beam of charged particles with a predetermined ~~projection beam~~ cross-section in ~~the mask~~ a plane in which the mask extends;

a positioning device for moving the ~~projection beam~~ cross-section of the beam of charged particles in the ~~mask~~ plane in which the mask extends along a predetermined path over the mask parallel to the direction into which the struts extend; and

a sensor for supplying a measuring signal which is dependent on ~~the~~ a number of charged particles impinging on ~~a~~ the at least one mark region provided on the mask.

2. (Original) The projection apparatus according to claim 1, wherein the positioning device is responsive to the measuring signal in order to reduce deviations from the predetermined path.

3. (Currently Amended) The projection apparatus according to claim 1, wherein the ~~projection beam~~ cross-section of the beam of charged particles has a width transverse to the direction into which the struts extend, ~~which~~ wherein the width corresponds substantially to ~~the~~ an inside width between adjacent struts.

4. (Currently Amended) The projection apparatus according to claim 1, wherein the beam shaping device further produces at least one auxiliary positioning beam to interact with the at least one mark region provided on the mask, wherein a cross-section of the at least one auxiliary beam is positioned in the ~~mask~~ plane in which the mask extends at a predetermined constant distance relative to the ~~projection beam~~ cross-section of the beam of charged particles.

5. (Currently Amended) The projection apparatus according to claim 4, wherein the ~~auxiliary beam~~ cross-section of the auxiliary positioning beam continuously tapers into a direction transverse to a direction into which the predetermined path of the cross-section of the beam of charged particles extends.

6. (Currently Amended) The projection apparatus according to claim 4, wherein the beam shaping ~~means~~ device produces ~~two~~ a first auxiliary positioning ~~beams, whose auxiliary position beam cross-sections are~~ beam and a second auxiliary positioning beam, wherein the cross-section of the first auxiliary positioning beam is spaced apart from ~~one another~~ the cross-section of the second auxiliary positioning beam in the ~~mask~~ plane in which the mask extends transverse to the direction into which the struts extend by an inside distance which is larger than ~~the~~ an inside width between adjacent struts.

7. (Currently Amended) The projection apparatus according to any one of claims 1 to 6, wherein the positioning device ~~controls~~ is configured to control the predetermined path of the cross-section of the ~~projection~~ beam ~~cross-section~~ of charged particles such that the number of charged particles impinging on the at least one mark region is minimized.

8. (Currently Amended) The projection apparatus according to any one of claims 1 to 6, wherein the positioning device ~~controls~~ is configured to control the predetermined path of the cross-section of the ~~projection~~ beam ~~cross-section~~ of charged particles such that the number of charged particles impinging on the at least one mark ~~regions~~ region corresponds to a predetermined value.

9. (Currently Amended) The projection apparatus according to claim 1, wherein the positioning device is responsive to the measuring signal to stop ~~the~~ a movement of the ~~projection beam~~ cross-section of the beam of charged particles along the predetermined path.

10 – 24. (Canceled)

25. (Currently Amended) A method for exposing a radiation sensitive layer by means of charged particles projected through a mask, the method comprising:

providing a mask, the mask comprising a membrane layer made of a first material, scattering regions forming a pattern and made of a second material scattering the charged particles more than the membrane layer, a plurality of straightly extending supporting struts spaced apart from one another and supporting the membrane layer together with the scattering regions, and at least one mark region;

providing a projection apparatus, the projection apparatus comprising a beam shaping device for producing a beam of the charged particles with a predetermined cross-section in a plane in which the mask extends, a positioning device for moving the cross-section of the beam of charged particles in the plane in which the mask extends along a predetermined path over the mask parallel to the direction into which the struts extend,

and a sensor for supplying a measuring signal which is dependent on a number of charged particles impinging on the at least one mark region provided on the mask; and

producing ~~a projection~~ the beam of the charged particles and moving the predetermined ~~projection beam~~ cross-section of the beam of the charged particles thereof in ~~a~~ the plane ~~of~~ in which the mask extends parallel to the direction into which the struts extend at least in response to the measuring signal such that the number of charged particles impinging on the mark region is at least one of minimized and corresponds to a predetermined value.

26. (Currently Amended) A method for exposing a radiation sensitive layer by means of charged particles projected through a mask, the method comprising:

providing a mask, the mask comprising a membrane layer made of a first material, scattering regions forming a pattern and made of a second material scattering the charged particles more than the membrane layer, a plurality of straightly extending supporting struts spaced apart from one another and supporting the membrane layer together with the scattering regions, and at least one mark region;

providing a projection apparatus, the projection apparatus comprising a beam shaping device for producing a beam of the charged particles with a predetermined cross-section in a plane in which the mask extends, a positioning device for moving the cross-section of the beam of the charged particles in the plane in which the mask extends along a predetermined path over the mask parallel to the direction into which the struts extend, and a sensor for supplying a measuring signal which is dependent on a number of charged particles impinging on the at least one mark region provided on the mask; and

producing ~~a projection~~ the beam of the charged particles and moving the predetermined ~~projection beam~~ cross-section of the beam of the charged particles thereof in ~~a~~ the plane ~~of~~ in which the mask extends parallel to the direction into which the struts extend; and

stopping the movement in response to the measuring signal.

27. (Original) The projection apparatus according to claim 2, wherein the projection beam cross-section has a width transverse to the direction into which the struts extend,

which corresponds substantially to the inside width between adjacent struts.

28. (Original) The projection apparatus according to claim 2, wherein the beam shaping device furthermore produces at least one auxiliary positioning beam to interact with the mark region provided on the mask, wherein a cross-section of the auxiliary beam is positioned in the mask plane at a predetermined constant distance relative to the projection beam cross-section.

29. (Original) The projection apparatus according to claim 3, wherein the beam shaping device furthermore produces at least one auxiliary positioning beam to interact with the mark region provided on the mask, wherein a cross-section of the auxiliary beam is positioned in the mask plane at a predetermined constant distance relative to the projection beam cross-section.

30. (Original) The projection apparatus according to claim 5, wherein the beam shaping means produces two auxiliary positioning beams, whose auxiliary beam cross-sections are spaced apart from one another in the mask plane transverse to the direction into which the struts extend by an inside distance which is larger than the inside width between adjacent struts.

31 – 37. (Canceled)

38. (New) The projection apparatus according to claim 1, wherein the sensor comprises at least one of an Auger electron detector, a backscattering electron detector, an X-ray detector, and a fluorescence radiation detector.